

LCC CRSP meeting - Addis 21-22 June 2011

10 min Presentation - Amos Omore, ILRI

ILRI: Better lives through livestock

Three pathways out of poverty: Market access; securing assets; improving productivity

ILRI's Markets Theme - Core areas:

- Smallholder competitiveness
- Changing demand and market institutions
- Animal health and food-safety for trade

Evolution into CGIAR CRPs – main areas:

- CRP 3.7: More Meat, Milk (and Fish) for and by the Poor: Value chains focus
- CRP 4: Agriculture for Improved Nutrition and Health
See: <http://mahider.ilri.org/handle/10568/3248>,

ILRI has a large ongoing research program on emerging diseases and zoonoses, with projects on RVF, cysticercosis, avian influenza, emerging zoonoses, zoonotic food-borne disease, surveillance, and wildlife-livestock interaction that will mostly fit into CRP 4.3.

LCC in ASALs and Animal disease issues

- Multi-factorial causes of disease: role of environment ; e.g., climate/temp variation in vector borne disease epidemiology like Malaria, blue tongue
- Candidate trade-related diseases in ASALs in EA: epidemics (e.g., RVF, PPR) and endemics (FMD, CCPP, CBPP, Brucellosis; camel pox).
- RVF is a flagship disease in CRP 4.3 on Control of agriculture-associated diseases (decision-support tool developed to address Rift Valley fever in Kenya). Long list of past and ongoing RVF-related collaborative projects.
- Delivery of animal health services in dev countries is tough: so need to critically think through recoverable costs, and new opportunities for that
- Impacts of quarantines
- CC is important but not the only driver of change (population, markets)
- Emergence of one-health/eco-system health concept to address complexity and cross-sectoral inter-actions between agriculture, environment and health sectors. Solutions require systems-based thinking and multi-disciplinary approaches, and new ways of working and institutional arrangements

Knowledge gaps/research question and approaches in context of the CHAINS project:

Within this context, we may ask these qns and approaches:

- What are the priority zoonotic and emerging diseases related to climate change
 - Consider: Prevalence, changing epidemiology, burden, risk factors
- What are the effects of changing marketing behaviour on disease occurrence

- role of vectors, health x nutrition interaction
- How are pastoralists coping with changing disease epidemiology?
- What are the opportunities for intervention and potential pay-offs?
 - Critical control points, options for control, costs and benefits, and cost effectiveness of control
 - How to better predict, plan for, and prevent diseases emergence?
 - How can surveillance, response, prevention and preparedness systems be more effective, integrated, and sustainable?
 - Which response strategies can improve adoption of control strategies?
 - How to build and test multi-sectoral, integrated control packages?
 - How to develop new technologies to meet current gaps in disease control?
 - How to promote uptake, adoption, and knowledge into use?

★Use one flag-ship disease such as RVF

Supporting skills:

- epidemiology (risk analysis; risk factor studies; prevalence and incidence surveys; impact assessment; diseases modeling; participatory approaches)
- biotechnology (genomic and metagenomics; bioinformatics; development drugs, vaccines and diagnostics; transgenic; population genetics; manipulation of microbial genomes)
- economics (cost benefit and effectiveness analysis; value chain; behavioral economics)
- sociology (gender and social determinants of health; health-seeking behavior; innovation systems; uptake and adoption)
- environment (ecosystem health; one health/ecohealth; wildlife/livestock interface)